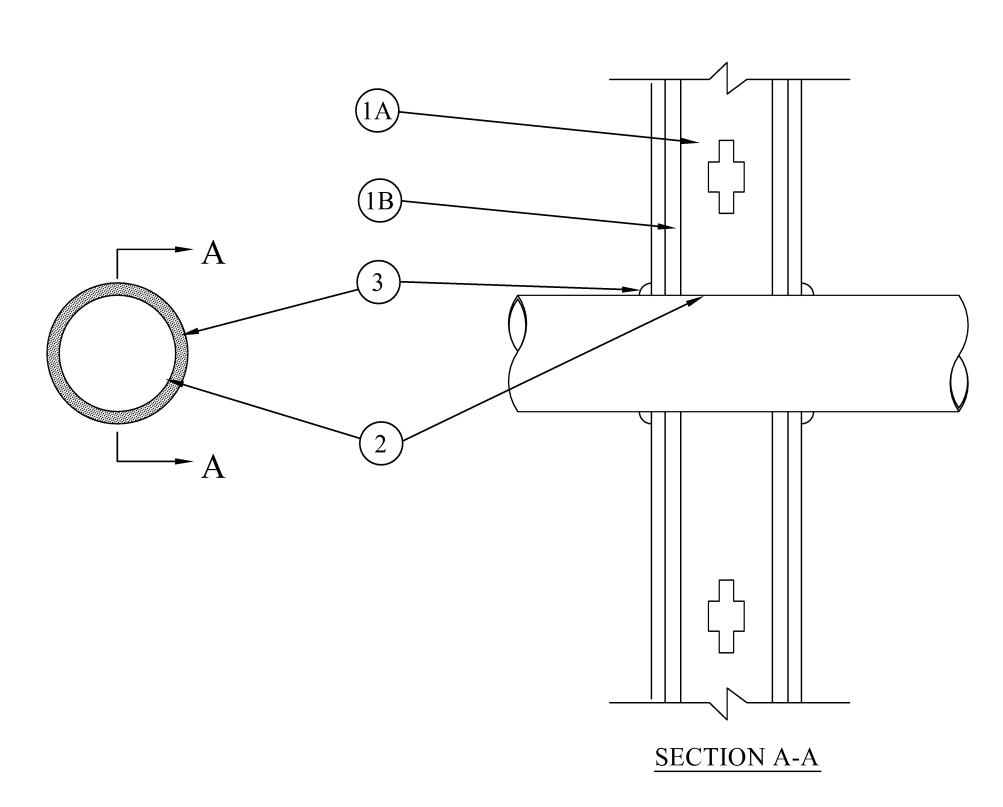
System No. W-L-1166

September 03, 2004

F Rating - 1 and 2 Hr (See Item 1B)

T Rating - 0 Hr



- 1. WALL ASSEMBLY THE 1 OR 2 HR FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

 A. STUDS WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN. 3—1/2 IN. WIDE AND SPACED MAX. 24 IN. OC.
 - B. GYPSUM BOARD* THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS AS REQUIRED IN IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX. DIAM. OF OPENING IS 5 IN.

THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

- 2. THROUGH PENETRANTS ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN. OF 0 IN. (POINT CONTACT) TO MAX. 1/8 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED"
 - A. COPPER TUBING NOM. 4 IN. DIAM. (OR SMALLER) TYPE M (OR HEAVIER) COPPER TUBING.
 - B. COPPER PIPE NOM. 4 IN. DIAM. (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
 C. STEEL PIPE 4 IN. DIAM. (OR SMALLER) SCHEDULE 5 (OR HEAVIER) STEEL PIPE.
 - D. CONDUIT NOM. 4 IN. DIAM. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR RIGID STEEL CONDUIT.

 E. IRON PIPE NOM. 4 IN. DIAM. (OR SMALLER) CAST OR DUCTILE IRON PIPE.
- 3. FILL, VOID OR CAVITY MATERIALS* CAÙLK, SEALANT OR PUTTY MIN. 1/2 IN. DIAMETER BEAD OF CAULK OR PUTTY APPLIED CONTINUOUSLY AROUND THE PENETRANT ON THE WALL SURFACES ON BOTH SIDES OF THE WALL.

3M COMPANY - CP 25WB+CAULK, MPS-2+PUTTY, OR FB-3000 WT SEALANT

- * BEARING THE UL CLASSIFICATION MARK
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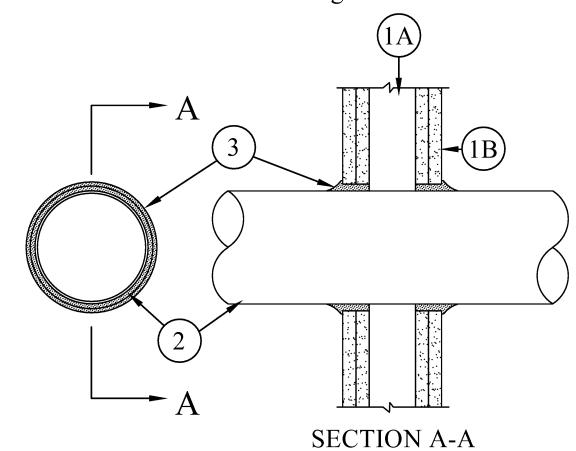


System No. W-L-1075

November 29, 1995

F Rating - 2 Hr

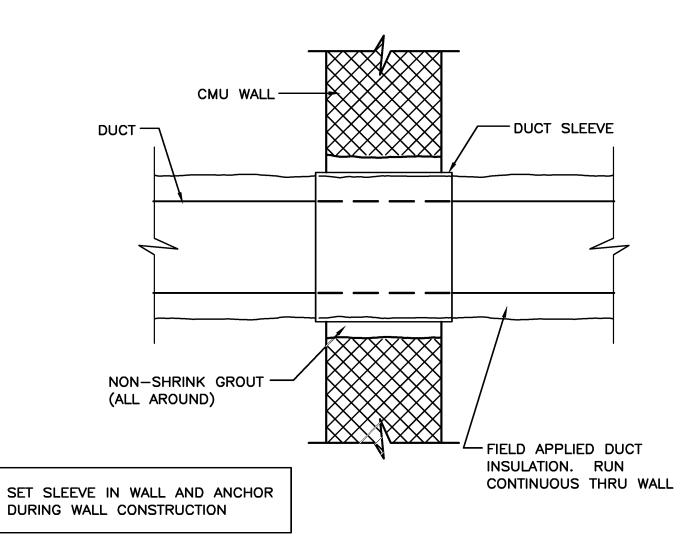
T Rating - 0 Hr



- 1. WALL ASSEMBLY THE FIRE—RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - A. STUDS WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2-1/2 IN. WIDE AND SPACED MAX 24 IN. OC.
 - B. GYPSUM BOARD* TWO LAYERS OF NOM 5/8 IN. THICK GYPSUM WALLBOARD, AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. MAX DIAM OF OPENING IS 4 IN.
- 2. THROUGH PENETRANTS ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE ANNULAR SPACE SHALL BE MIN 0 IN. TO MAX 1/4 IN. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES. CONDUITS OR TUBING MAY BE USED:
 - A. STEEL PIPE NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - B. IRON PIPE NOM 12 IN. DIAM (ÒR SMALLER) CAST OR DUCTILE IRON PIPÉ.
 - C. CONDUIT NOM 6 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR STEEL CONDUIT D. COPPER TUBING NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - E. COPPER PIPE NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
- 3. FILL, VOID OR CAVITY MATERIAL* CAULK FILL MATERIAL TO BE FORCED INTO THE ANNULUS TO MAXIMUM EXTENT POSSIBLE. ADDITIONAL FILL MATERIAL TO BE INSTALLED SUCH THAT A MIN 1/2 IN. CROWN IS FORMED AROUND THE PENETRATING ITEM AND LAPPING 1/4 IN. BEYOND THE PERIPHERY OF THE OPENING.

RECTORSEAL - METACAULK 950





WALL PENETRATION - EXTERNALLY INSULATED DUCT

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REVISIONS:

TE:

AUGUST 28, 2012

SHEET TITLE:
DETAILS MECHANICAL

SHEET NO:

M2.2